PROJECT 10073 RECORD CARD

1. DATE 13 May 1955	2. LOCATION Duluth, Minnesota	12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☒ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☐ Other ☐ Insufficient Data for Evaluation ☐ Unknown
3. DATE-TIME GROUP Local GMT 14/0230Z	4. TYPE OF OBSERVATION ☐ Ground-Visual ☐ Ground-Radar ☐ Air-Visual ☒ Air-Intercept Radar	
5. PHOTOS ☐ Yes ☒ No	6. SOURCE Military	
7. LENGTH OF OBSERVATION 4-5 minutes	8. NUMBER OF OBJECTS one	9. COURSE

10. BRIEF SUMMARY OF SIGHTING

Two AF pilots on A/I mission locked on UFO.

11. COMMENTS

See case file and evaluation rendered this incident by WADC. Evaluated as ~~d~~c/

ATIC FORM 329 (REV 26 SEP 52)

DISPOSITION FORM

SECURITY CLASSIFICATION (If any)

Top
4E4

EVAL: Poss.
ACFT.

FILE NO.

SUBJECT: Air Intelligence Information Report

TO AFOIN-4E4
ATTN Capt Hardin

FROM WCLGF-2

DATE DEC 16 19

COMMENT NO. 1
LtHarnen/hvt
27166/B22/P23A

1. Reference ismade to AF Form 112, Subject, "UFOB," dated 17 May 1955 and originated by the Intelligence Officer, 11th Fighter Interceptor Squadron.

2. Weapons Guidance Laboratory comments on referenced report are as follows:

a. Based on the vectoring and range data contained in the report, a plot (Figure I) of the intercept shows that the target could have been an aircraft of similar performance to modern jet aircraft. During the intercept the target was executing a tight turn to starboard.

b. For a portion of the targets turn to starboard, the interceptor and target were flying approximately parallel (Figure I,D) at about the same velocity. With the target at 35 degrees starboard and flying parallel to the interceptor, the target would appear as a stationary return on the RO's scope.

c. It is doubtful that the pilots indicator or the RO's scope could be used to accurately measure the 1000 knots reported speed of the target as it was going out in range. The maximum opening range rate that can be observed from the range rate gap on the pilots indicator is 200 knots. The fire control system specification requires that the system should be able to measure range rate from 1200 knots closing to 200 knots opening range rate.

d. Another possible explanation of the reported speed of the target as it went out in range is that the interceptors radar jumped lock. For a short period of time and with a slight misalignment of the system, the radar could appear to be locked onto the target while actually the radar had jumped lock. Under these conditions, the return on the scope could move in such a manner that the RO would believe that the return was a target.

e. The reported elevation angles of the target as it was going out in range at 1000 knots are considered to be approximate, as only the approximate elevation angles of the antenna are indicated by the position of the elevation marker at the right edge of the RO's scope. Also, because the indicated elevation angle is measured with respect to the interceptor heading and not with respect to ground coordinates, a diving or climbing attitude of the interceptor would result in a corresponding increase or decrease of the elevation angle.

2 Incls
1. 1st Ind fr 515th Air Def Gp dtd 21Jun55
2. 1st Ind fr 4602d Air Intel Ser Sq(ADC) dtd 1Jun55 w/2 incls

William D Jones
WILLIAM D. JONES
Lt. Colonel, USAF
Chief, Fighter Systems Branch
Weapons Guidance Laboratory

DD FORM 1 FEB 50 96 REPLACES NME FORM 96, 1 OCT. 48, WHICH MAY BE USED 16—54891-3 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1955 O-353941

AIR TECHNICAL INTELLIGENCE CENTER
WRIGHT-PATTERSON AIR FORCE BASE
OHIO

15 JUN 1955

SUBJECT: (Uncl) Request for Additional Information

TO: Commander
515th Air Defense Group
Duluth Municipal Airport
Duluth, Minnesota

1. Reference AF Form 112, subject: UFOB, dated 17 May 1955 and originated by the Intelligence Officer, 11th Fighter Interceptor Squadron.

2. In order to facilitate an accurate analysis of the report, request the crew of aircraft #32525 be re-interrogated as to whether or not the target return was intermittent or steady.

FOR THE COMMANDER

Mary L. Storm

MARY L. STORM
1st Lt. USAF
Assistant Adjutant

FIS-I (17 May 1955) 1st Ind 21 JUN 1955

HEADQUARTERS, 515TH AIR DEFENSE GROUP, Duluth Municipal Airport, Duluth Minnesota

TO: Commander, Air Technical Intelligence Center, Wright-Patterson Air Force Base, Ohio

Crew of aircraft #32525 report that target return was steady for full period of scope coverage.

FOR THE COMMANDER:

Robert H. Bjorklund

ROBERT H. BJORKLUND
Capt., USAF
Adjutant

662

HEADQUARTERS
515th AIR DEFENSE GROUP
DULUTH MUNICIPAL AIRPORT
DULUTH, MINNESOTA

AIS-1 26 MAY 195[illegible]

SUBJECT: Transmittal of Intelligence Information

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs
Colorado
ATTN: Director of Intelligence

Transmitted herewith, in accordance with AFR 200-2, is AF Form 112 and 112 (II), UFOB Report.

FOR THE COMMANDER

Carlton L. Nelson

CARLTON L. NELSON
2nd Lt., USAF
Adjutant

2 Incls
1. Air Intell Info Dept (3 Cys) (Lt Rapp)
2. Air Intell Info Dept (3 Cys) (Lt Holtan)

B/Ltr Hq 515th ADEFCRU, Duluth Mun Aprt, Minn, FIS-I, 26 May 55,
Subj: Trans of Intel Info

AISOP (26 May 55) 1st Ind

HEADQUARTERS, 4602D AIR INTELLIGENCE SERVICE SQUADRON (ADC), Ent Air Force Base, Colorado Springs, Colorado 1 JUN 1955

TO: Commander ATIC, ATTN: ATIA-5, Wright Patterson Air Force Base, Dayton, Ohio

1. The inclosed preliminary UFOB report is transmitted for your information. The nature of this sighting is such that your organization is probably better equipped to handle it.

2. This organization checked with the 3rd Weather Group, ADC, resulting in no indication of weather phenomena at the time and location of sighting which might help to explain this report.

FOR THE COMMANDER:

Ray L Jones

2 Incls
n/c

RAY L. JONES
Major USAF
Adjutant

AF FORM 112
APPROVED 1 JUNE 1948

(CLASSIFICATION)

COUNTRY	REPORT NO.	(LEAVE BLANK)
United States		

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT: UFOB

AREA REPORTED ON	FROM (Agency)
NORTHERN MINNESOTA	11TH F.I.S. (INTELLIGENCE)

DATE OF REPORT	DATE OF INFORMATION	EVALUATION
17 May 1955	16 May 1955	A-2

PREPARED BY (Officer)	SOURCE
EDWARD A. RAPP 2/Lt. Asst. Intell. Officer	Air Crew Report

REFERENCES (Control number, directive, previous report, etc., as applicable)
AFR 200-2

SUMMARY: (Enter concise summary of report. Give significance in final one-sentence paragraph. List inclosures at lower left. Begin text of report on AF Form 113—Part II.)

In accordance with AFR 200-2, this report describes in detail the sighting of an unidentified flying object by an aircrew of this unit. The aircrew (pilot and radar observer) made the observations by radar while on a routine night training mission. The inexplainable speed and maneuvers performed by the object were considered significant enough to necessitate this report.

Approving Officer:

DAVID H. HOLTAN
1st Lt. USAF
Intelligence Officer

_____ INCLS.

DISTRIBUTION BY ORIGINATOR

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(CLASSIFICATION)

16—66589-2 U. S. GOVERNMENT PRINTI

AF FORM 112—PART II
APPROVED 1 JUNE 1948

(CLASSIFICATION)

AIR INTELLIGENCE INFORMATION REPORT

FROM (*Agency*)	REPORT NO.	PAGE 2 OF 3 PAGES

UFOB (Format from AFR 200-2)

(1.) Description:
(a) Not discernable (radar sighting)
(b) " " " "
(c) " " " "
(d) One
(e) N/A
(f) None discernable
(g) " "
(h) " "
(i) " "

(2) Description of course:
(a) Unusual characteristics of return on scope.
(b) Level and 45 degrees starboard.
(c) 30 degrees above and 60 degrees starboard.
(d) (Statement of observers) Object came in at 15 miles, 45 degrees starboard, level. We were heading 45 degrees straight and level, with 260 knots (indicated airspeed). Believing it was target aircraft, we turned 45 degrees starboard and locked object on RO's scope. Target moved over to 20 degrees starboard at end of turn. At 8 miles we turned port again about 30 degrees and target moved over to 35 degrees starboard. Still reading level, object then came down the scope at about 35 degrees (no more than 38 degrees and no less than 33 degrees). Target was down from 8 miles to 6 miles at 35 degrees starboard when pilot began flying the dot. Target continued down at 35 degrees starboard and time-to-go circle decreased from 20 seconds to go to 8 or 10 seconds. On RO's scope target came straight down 35 degrees starboard to 6,000 yards and stopped dead. It immediately began going out in range faster than it came in (staying very close to 35 degrees starboard), and went from 6,000 yards to 8 miles. Elevation dot then moved from level to 30 degrees above. Pilot's time-to-go circle went from about 8 or ten seconds to about 20 seconds. From the point where the target started going out in range, we (the interceptor) were in straight and level flight with a constant true airspeed of about 375 knots at 26,000 feet. We took a hard port turn when this indication was at about 9 miles (30 degrees above) and it went off the scope at about 10 miles (35 degrees above). Estimated speed at time target indication was going out in range, according to scope interpretation and pilot's and RO's experience in running interception, would be over 1,000 knots.
(e) Refer to "d"
(f) 4 to five minutes

(3) Manner of observation:
(a) Air-electronic: APG-40; APA-84
(b) None
(c) F-89D, 32525, 26,000 feet, 045 degrees original heading, 080 degrees last heading, 375 knots, Duluth.

(4) (a) 14/0230Z
(b) Night

(5) Latitude: 47 degrees 07' North
Longitude: 93 degrees 07' West

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AF FORM 112—PART II
APPROVED 1 JUNE 1948

(CLASSIFICATION)

AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 3 OF 3 PAGES
11th F.I.S.		

(6) Observers:
(a) N/A
(b) Middleton, Charles M., 1/Lt.
11th FIS, Pilot (Interceptor)
Completely reliable
Fisher, Donald G., 2/Lt.
11th FIS, Radar Observer
Completely Reliable

(7) Weather:
(a) Clear
(b) Surface: 90/08
6,000: 240/16
10,000: 270/07
16,000: 260/20
20,000: 290/20
30,000: 300/30
50,000: 280/25
80,000: 290/08
(c) Clear
(d) 15 plus
(e) None

(8) No information as to any unusual activity has been received.

(9) Refer to 2d

(10) Northwest at about 50 miles there were two aircraft running interceptions.

(11) Prepared by the Assistant Intelligence Officer, 11th F.I.S.
No suggestions given as to the possible cause of the sightings.

(12) None

Edward A. Rapp
EDWARD A. RAPP
2/Lt.
Asst. Intell. Officer

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INTELLIGENCE, USAF.

(CLASSIFICATION)

BY ..... DATE ..... SUBJECT ..... SHEET NO. ..... OF .....

CHKD. BY ..... DATE ..... JOB NO. .....

A.) TARGET PICKED UP AT 15 MILES, 45° STARBOARD

B.) ASSUMED 15 SECOND DECISSION TIME AND TURN 45° STARBOARD. TARGET THEN 20° STARBOARD.

C.) TURN 30° DEGREES PORT AND THEN TARGET IS 35° STARBOARD AT 3 MILES.

D.) PILOT FLEW ERROR DOT TO 3 MILES AND 35° STARBOARD.

FIGURE I GRAPHICAL INTERPRETATION OF AIR INTELLIGENCE INFORMATION REPORT